In the Claims:

Please cancel claims 1-6, without prejudice; and amend claims 7, 9-11, 13, 15 and 17. The status of the claims is as follows:

1-6. (Canceled)

7. (Currently Amended) A magneto-optical recording medium comprising:

a recording layer made of TbFeCo which has a direction of easy magnetization extending in a direction perpendicular to the recording layer and shows a transition metal-rich magnetization;

an intermediate layer stacked on the recording layer and made of GdFeCo, GdFeCoSi or GdFe which has a direction of easy magnetization extending in an in-plane direction at room temperature and shows a rare earth element-rich magnetization;

a reproduction layer stacked on the intermediate layer and made of GdFeCo or GdDyFeCo which has a direction of easy magnetization extending in a direction perpendicular to the reproduction layer and shows a transition metal-rich magnetization; ~~the layers being stacked in this order, wherein~~ and

a mask layer made of GdFeCo which is formed on the reproduction layer, has a direction of easy magnetization extending in an in-plane direction at room temperature, shows a rare earth element-rich magnetization, and exhibits a Curie temperature higher than that of ~~said~~ the recording, intermediate and reproduction layers.

8. (Original) A magneto-optical recording medium as set forth in claim 7, wherein GdFeCo consisting the mask layer contains Gd in the range of 26 to 30 atomic% and has a compensation temperature between the room temperature and the Curie temperature.

9. (Currently Amended) A reproduction method for a magneto-optical recording medium, the magneto-optical recording medium being a magnetic super resolution type magneto-optical recording disk of multilayer structure including at least a recording layer, an intermediate layer, a reproduction layer and a mask layer stacked in this order and having a plurality of recording tracks arranged at a predetermined track pitch in a radius direction, the mask layer exhibiting a Curie temperature higher than that of the recording, intermediate and reproduction layers, the reproduction method comprising;

transferring data which is magnetically recorded in the recording layer of each track to the reproduction layer~~, thereby reproducing the data, wherein~~ ;

scanning a track to be read ~~is scanned~~ with a light beam having a spot diameter larger than the track pitch under a state where a reproduction magnetic field is applied in a direction perpendicular to a surface of the disk such that the data in the track to be read is exchanged-coupled to a first reproduction aperture defined between two mask regions generated on the reproduction layer in front and behind along the track direction by temperature distribution through the light beam irradiation~~,~~; and

passing the data ~~is passed~~ through a second reproduction aperture generated in the mask layer for controlling expansion of the first reproduction aperture in a disk radius direction, thereby reproducing the data.

10. (Currently Amended) A reproduction apparatus for a magneto-optical recording medium, the magneto-optical recording medium being a magnetic super resolution type magneto-optical recording disk of multilayer structure including at least a recording layer, an intermediate layer, a reproduction layer and a mask layer stacked in this order and having a plurality of recording tracks arranged at a predetermined track pitch in a radius direction, the mask layer exhibiting a Curie temperature higher than that of the recording, intermediate and reproduction layers, wherein the reproduction apparatus ~~being~~ is used for transferring data which is magnetically recorded in the recording layer of each track to the reproduction layer, thereby reproducing the data, ~~wherein~~ the reproduction apparatus ~~comprises~~ comprising:

a mounting means ~~which is~~ connected with a driving mechanism ~~and~~ for rotatably ~~mounts~~ mounting the magneto-optical disk;

a magnetic field generating device for applying a reproduction magnetic field in a direction perpendicular to a surface of the mounted disk;

an optical system for irradiating a reproduction light beam having a spot diameter larger than the track pitch onto the mask layer side of the disk; and

a signal processing means for detecting reflection of the reproduction light beam from the disk and modulating it to an electrical signal,

wherein the reproduction apparatus reproduces data by scanning a track to be read with a light beam having a spot diameter larger than the track pitch under a state where a reproduction magnetic field is applied in a direction perpendicular to a surface of the disk such that the data in the track to be read is exchanged-coupled to a first reproduction aperture defined between two mask regions generated on the reproduction layer in front and behind along the track direction by temperature distribution through the light beam irradiation, and passing the data through a second reproduction aperture generated in the mask layer for controlling expansion of the first reproduction aperture in a disk radius direction.

11. (Currently Amended) A magneto-optical recording medium comprising: ~~four magnetic layers including~~

a mask layer~~,~~;

a reproduction layer~~,~~;

an intermediate layer; and

a recording layer,

wherein the reproduction layer and the recording layer each have a direction of easy magnetization extending in a layer stacking direction at room temperature, the mask layer and the intermediate layer each have a direction of easy magnetization extending in an in-plane direction at room temperature, the mask layer, the reproduction layer, the

intermediate layer and the recording layer have Curie temperatures Tc1, Tc2, Tc3 and Tc4, respectively, which satisfy relationships of ~~Tc3<Tc2, Tc3<Tc4 and Tc3<Tc1,~~ Tc1>Tc2>Tc3<Tc4 and Tc1>Tc4, and the intermediate layer is made of a rare earth transition metal showing a rare earth element-rich magnetization and the mask layer has a region of magnetization in a perpendicular direction surrounded by regions of magnetization in an in-plane direction at a certain temperature.

12. (Previously Presented) A magneto-optical recording medium as set forth in claim 11, wherein the mask layer is made of GdFeCo in which Gd is contained in the range of 26 to 30 atom% and Co is contained in the range of 20 to 30 atom%.

13. (Currently Amended) A magneto-optical recording medium as set forth in claim 11~~, or 12,~~ further comprising a nonmagnetic layer provided between the mask layer and the intermediate layer.

14. (Original) A magneto-optical recording medium as set forth in claim 13, wherein the nonmagnetic layer is composed of a material selected from the group consisting of SiN, SiO_2, AlN, C, ZnS-SiO_2, Al, AlTi, AlCr, Pt, Au, Ag, Si and Ge.

15. (Currently Amended) A magneto-optical recording medium as set forth in ~~any one of claims 11 or 12,~~ claim 11 further comprising a magnetic layer which has a

direction of easy magnetization extending in an in-plane direction at room temperature and is exchanged-coupled to the mask layer.

16. (Original) A magneto-optical recording medium as set forth in claims 15, wherein the magnetic layer contains Gd.

17. (Currently Amended) A magneto-optical recording medium as set forth in ~~any one of claims 11 or 12,~~ claim 11, wherein three magnetic layers including the mask layer, the reproduction layer and the intermediate layer each contain Gd.